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AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A reflector structure in a liquid crystal display having light condensing effect, comprising:

a condenser having diffraction or refraction condensing effect, said condenser having an averaged equivalent focus;

a spacing layer being formed above and covering said condenser, said spacing layer having a thickness; and

a reflective unit formed above said spacing layer;

wherein the ratio of the averaged equivalent focus of said condenser to the thickness of said spacing layer is between 0.65 and 1.4.
2. (Currently Amended) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, wherein said reflector structure further includes an active device substrate formed above said condenser.
3. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, wherein said spacing layer is an active device substrate.
4. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, wherein said condenser has diffraction or refraction condensing effect and comprises a plurality of several metals with periodic patterns and various widths and distances.
5. (Original) The reflector structure in a liquid crystal display having light condensing

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effect as claimed in claim 1, said condenser further comprising:

a first layer of transparent materials with unit refractive index, said first layer of transparent materials comprising a plurality of transparent materials with periodic patterns and various widths and distances; and

a second layer of transparent materials with different refractive index, said second layer being formed above said first layer of transparent materials.

6. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, said condenser further comprising:

a first layer of transparent materials with unit refractive index, said first layer of transparent materials comprising a plurality of multi-level transparent materials with periodic patterns and various distances; and

a second layer of transparent materials with different refractive index, said second layer being formed above said first layer of transparent materials.

7. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, said condenser further comprising:

a first layer of transparent materials with unit refractive index, said first layer of transparent materials comprising a plurality of wedge-shaped micro prisms of unit refractive index with periodic patterns and various distances; and

a second layer of transparent materials with different refractive index, said second layer being formed above said first layer of transparent materials.

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8. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, said condenser further comprising:
- a first layer of transparent materials with unit refractive index, said first layer of transparent materials comprising a plurality of micro lens of unit refractive index with periodic patterns and various distances; and
- a second layer of transparent materials with different refractive index, said second layer being formed above said first layer of transparent materials.
9. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 6, wherein the cross sectional shapes of said multi-level transparent materials are rectangular and the widths of rectangular transparent materials are decreased level by level from bottom to top.
10. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 6, wherein said second layer of transparent materials is a spacing layer.
11. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 7, wherein said plurality of wedge-shaped micro prisms have various sizes including volumes, cross-sectional or lateral areas, slopes and heights.
12. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 8, wherein said plurality of micro lens have various sizes including volumes, cross-sectional or lateral areas, slopes and heights.

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13. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 7, wherein said second layer of transparent materials is a spacing layer.
14. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 8, wherein said second layer of transparent materials is a spacing layer.
15. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, wherein the range of the averaged equivalent focus of said condenser is 230 μm to 1250 μm .
16. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, wherein said spacing layer is an over coat layer.
17. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 1, wherein said spacing layer is a color filter.
18. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 2, said spacing layer further comprising:

a color filter formed above said condenser; and

an over coat layer formed above said color filter.
19. (Cancelled).
20. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 2, where said reflective unit is a flat metal layer.

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21. (Currently Amended) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 2, said reflective unit further comprising:

an inner diffusion layer formed above said spacing layer, said inner diffusion layer forming convex structures around ~~the pixel~~ and within ~~[[the]]~~ a pixel area of said liquid crystal display and concave structures at the boundary of the transparent area of the pixel area, the average gap of liquid crystal cells in the transparent area of the pixel area is different from the average gap of liquid crystal cells in the reflective area within the a single pixel area;

a reflective metal layer formed above said inner diffusion layer in the reflective area of the pixel area of said liquid crystal display; and

an ITO electrode layer formed above said spacing layer in the transparent area of the pixel area of said liquid crystal display.

22. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 21, said spacing layer further comprising:

a color filter formed above said condenser; and

an over coat layer formed above said color filter.

23. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 21, wherein said spacing layer is a color filter.

24. (Currently Amended) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 2, said reflective unit further comprising:

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an inner diffusion layer formed above said spacing layer, said inner diffusion layer having only one gap of liquid crystal cells within a ~~single~~ pixel area;

a reflective metal layer formed above said inner diffusion layer in the reflective area of the pixel area of said liquid crystal display; and

an ITO electrode layer formed above said spacing layer in the transparent area of the pixel area of said liquid crystal display.

25. (Original) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 21, wherein said ITO electrode layer has at least one aperture.

26. (Currently Amended) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 3, said reflective unit further comprising:

an inner diffusion layer formed above said active device substrate, said inner diffusion layer forming convex structures around ~~the pixel~~ and within ~~[[the]]~~ a pixel area of said liquid crystal display and concave structures at the boundary of the transparent area of the pixel area, the average gap of liquid crystal cells in the transparent area of the pixel area is different from the average gap of liquid crystal cells in the reflective area within a ~~single~~ the pixel area;

a reflective metal layer formed above said inner diffusion layer in the reflective area of the pixel area of said liquid crystal display; and

an ITO electrode layer formed above said active device substrate in the transparent area of the pixel area of said liquid crystal display.

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27. (Currently Amended) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 3, said reflective unit further comprising:

an inner diffusion layer formed above said active device substrate, said inner diffusion layer having only one gap of liquid crystal cells within a single pixel area;

a reflective metal layer formed above said inner diffusion layer in the reflective area of the pixel area of said liquid crystal display; and

an ITO electrode layer formed above said active device substrate in the transparent area of the pixel area of said liquid crystal display.

28. (Currently Amended) The reflector structure in a liquid crystal display having light condensing effect as claimed in claim 3, said reflective unit in each of red, green and blue sub-pixel areas in a single pixel area further comprising:

an inner diffusion layer formed above said active device substrate, said inner diffusion layer forming convex structures around ~~the pixel~~ and within ~~[[the]]~~ a pixel area of said liquid crystal display and concave structures at the boundary of the transparent area of the pixel area, the average gap of liquid crystal cells in the transparent area is different from the average gap of liquid crystal cells in the reflective area within the a single pixel area;

a reflective metal layer formed above said inner diffusion layer in the reflective area of the pixel area of said liquid crystal display;

a first ITO electrode layer formed above said active device substrate in the transparent area of the pixel area of said liquid crystal display;

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a color filter formed above said inner diffusion layer, said reflective metal layer, and said first ITO electrode layer; and

a second ITO electrode layer formed above said color filter.

29. (Original) A liquid crystal display having light condensing effect with a reflector structure as claimed in claim 1, wherein said liquid crystal display further comprises an upper plate and a layer of liquid crystal cells, and said upper plate includes from top to bottom an upper substrate, a color filter and a layer of ITO electrode layer.
30. (Original) The liquid crystal display having light condensing effect as claimed in claim 29, said liquid crystal display comprising the reflector structure having light condensing effect as claimed in claim 28.
31. (Original) The liquid crystal display having light condensing effect as claimed in claim 29, said liquid crystal display comprising the reflector structure having light condensing effect as claimed in claim 22.
32. (Original) The liquid crystal display having light condensing effect as claimed in claim 29, said liquid crystal display comprising the reflector structure having light condensing effect as claimed in claim 23.
33. (Original) The liquid crystal display having light condensing effect as claimed in claim 29, wherein liquid crystal cells in said liquid crystal layer are positive or negative liquid crystals.
34. (Currently Amended) The liquid crystal display having light condensing effect as claimed in claim 29, wherein the liquid crystal gap in the transparent area of a pixel

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area of said liquid crystal layer is greater than that in the reflective area of the pixel area.

35. (Currently Amended) The liquid crystal display having light condensing effect as claimed in claim 34, wherein the difference between the liquid crystal gap in the transparent area of a pixel area and the liquid crystal gap in the reflective area of the pixel area is between 0.16 μm and 3.3 μm .
36. (Original) The liquid crystal display having light condensing effect as claimed in claim 34, wherein liquid crystal cells in said liquid crystal layer are positive liquid crystals, and the bi-refractive index of said positive liquid crystals is between 0.05 and 0.1.
37. (Currently Amended) The liquid crystal display having light condensing effect as claimed in claim 34, wherein liquid crystal cells in said liquid crystal layer are positive liquid crystals, the range of the retardation in the transparent area of a pixel area is 270 nm to 460 nm, and the range of the retardation in the reflective area of the pixel area is 200 nm to 330 nm.
38. (Original) The liquid crystal display having light condensing effect as claimed in claim 34, wherein liquid crystal cells in said liquid crystal layer are negative liquid crystals, and the bi-refractive index of said negative liquid crystals is between 0.06 and 0.13.
39. (Currently Amended) The liquid crystal display having light condensing effect as claimed in claim 34, wherein liquid crystal cells in said liquid crystal layer are

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negative liquid crystals, the range of the retardation in the transparent area of a pixel area is 320 nm to 500 nm, and the range of the retardation in the reflective area of the pixel area is 150 nm to 400 nm.